Dominion Nuclear Connecticut, Inc.
Rope Ferry Road, Waterford, CT 06385

Web Address: www.dom.com

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OCT 07 2013

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 13-523
MPS Lic/LES R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
LICENSEE EVENT REPORT 2013-007-00
REACTOR TRIP ON LOW-LOW STEAM GENERATOR LEVEL

This letter forwards Licensee Event Report (LER) 2013-007-00 documenting an event at Millstone Power Station Unit 3 on August 9, 2013. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B), initially reported via event notification 49260 pursuant to 10 CFR 50.72 (b)(2)(iv)(B) and 10 CFR 50.72 (b)(3)(iv)(A).

If you have any questions or require additional information, please contact Mr. William D. Bartron at (860) 444-4301.

Sincerely,

Stephen E. Scace
Site Vice President – Millstone

Attachments: 1

Commitments made in this letter: None

IE22
NRR

cc: U.S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

J. S. Kim
Project Manager - Millstone Power Station
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 08 C2A
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2013-007-00
REACTOR TRIP ON LOW-LOW STEAM GENERATOR LEVEL

MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.

NRC FORM 366 (10/2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Millstone Power Station – Unit 3	05000423	1 OF 2

4. TITLE

Reactor Trip on Low-Low Steam Generator Level

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
08	09	2013	2013	-007-	00	10	07	2013	FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE

1

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
William D. Bartron, Supervisor Nuclear Station Licensing	860-444-4301

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On August 09, 2013 at 2119, while in MODE 1 at 100 percent power, Millstone Power Station Unit 3 experienced an automatic reactor trip on steam generator (SG) low-low water level. The low-low SG water level condition resulted from all main feed water pump recirculation valves failing full open following a loss of power from non safety-related 480 volt load center 32L. This bus powered the instrumentation loops for all three main feedwater pump recirculation valve controllers. Upon the loss of power, the valves went to their failure state of "Recirculation", resulting in a loss of feedwater header pressure and flow to the steam generators causing the unit to automatically trip on low-low steam generator level. The auxiliary feedwater system started as designed and maintained steam generator levels. Safety systems functioned as expected. There were no radiological challenges as a result of the event.

The direct cause of the event was the loss of power to the 480V bus that powered the three main feedwater pump recirculation valve controllers. Troubleshooting efforts did not reveal the cause of the ground that led to the loss of bus 32L. Power to the three main feedwater recirculation valves has been temporarily moved to another power supply.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Millstone Power Station – Unit 3	05000423	2013	-- 007 --	00	2 OF 2

NARRATIVE

1. EVENT DESCRIPTION

On August 09, 2013 at 2119, while in MODE 1 at 100 percent power, Millstone Power Station Unit 3 experienced an automatic reactor trip on steam generator (SG) "C" low-low water level. The low-low SG water level condition resulted from all main feed water pump recirculation valves failing full open following a loss of power from non safety-related 480 volt load center 32L. This bus powered the instrumentation loops for all three main feedwater pump recirculation valve controllers. Upon the loss of power, the valves went to their failure state of "Recirculation". The redirection of water into the recirculation lines and back to the main condenser resulted in a loss of feedwater header pressure and flow to the steam generators causing the unit to automatically trip on low-low steam generator level. All control rods fully inserted into the reactor. The auxiliary feedwater system started as designed and maintained steam generator levels. Safety systems functioned as expected. There were no radiological challenges as a result of the event.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

2. CAUSE

The direct cause of the event was the loss of power to the 480V bus that powered the three main feedwater pump recirculation valve controllers. Troubleshooting efforts did not reveal the cause of the ground that led to the loss of bus 32L.

3. ASSESSMENT OF SAFETY CONSEQUENCES

There were no safety consequences associated with this event.

All control rods inserted following the reactor trip on SG low-low water level. The operating crew responded to the reactor trip by entering Emergency Operating Procedure (EOP) 35 E-0, "Reactor Trip or Safety Injection." Plant mitigating equipment responded as expected with no safety system failures.

The auxiliary feedwater system started automatically on the trip as expected, and restored the SG water levels to their normal operating band, maintaining reactor coolant system (RCS) heat removal. There were no challenges to the fuel, RCS or containment fission product barriers.

4. CORRECTIVE ACTION

Power to the three main feedwater recirculation valves has been temporarily moved to another power supply. Additional corrective actions are being taken in accordance with the station's corrective action program.

5. PREVIOUS OCCURRENCES

None

6. ENERGY INDUSTRY IDENTIFICATION SYSTEM (EIIS) CODES

Steam Generator [SG]

Feed Water [FW] pump [P] recirculation valves [V]

Reactor Protection System [JC]

Auxiliary Feedwater System [BA]